

Catheter ablation benefits younger adults with irregular heartbeat

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Patients under age 45 had fewer major complications than older patients and comparable improvement after a medical procedure to treat irregular heartbeat, or arrhythmia, in a study reported in *Circulation: Arrhythmia and Electrophysiology*, an American Heart Association journal.

The procedure, known as [catheter ablation](#), delivers a heat pulse to the heart through thin tubes to destroy abnormal [heart tissue](#) that causes the irregular heartbeat. It was used in this study to treat [atrial fibrillation](#) (AF), a common arrhythmia.

Younger patients also were less likely than older ones to require medication at least one year after catheter ablation — which means it may be an appropriate first therapy, said Peter Leong-Sit, M.D., lead author and an [arrhythmia](#) physician at London Health Sciences-University Hospital in London, Ontario, Canada. Typically, medication is used first to control the condition. American Heart Association guidelines recommend ablation as a second-line treatment - to be used only if medication doesn't work.

“While AF is more common with increasing age, clinical experience has suggested that younger patients tend to be more symptomatic and less willing to take long-term medications,” write the study authors.

One year after catheter ablation, the percentage of patients of all ages with either infrequent or no AF was virtually the same:

- 87 percent of patients younger than 45 years old;

- 88 percent of patients 45-54 years old and 55-64 years old;
- 82 percent of patients 65 years or older.

Unlike older patients, however, younger patients had no major complications, including stroke. In contrast, about 2 percent to 3 percent of patients in the older age groups suffered serious complications during or after catheter ablation.

During follow-up, the investigators monitored patients' [irregular heartbeat](#) episodes with a transtelephonic monitor. Using the monitor, patients transmitted a detailed chart of their heartbeat twice a day at 6 - 12 weeks follow-up, at 6 months, and at 1 year. Patients also made additional transmissions if they had any AF symptoms at any time during follow-up and/or when antiarrhythmic drugs were discontinued.

The study comprised 1,548 patients undergoing catheter ablation within the University of Pennsylvania Health System between November 2000 and September 2008. All patients had atrial fibrillation that had not responded to medication. Their average age was 56 years old, and 70 percent were men.

Atrial fibrillation occurs when the heart's upper chambers (atria) periodically quiver instead of beating with an effective rhythm. Blood isn't pumped completely out of the atria so it can pool and clot. If these blood clots leave the atria and become trapped in a brain artery, [stroke](#) may occur.

More than 2.2 million people in the United States have atrial fibrillation. Since it's more common among the elderly, affecting about 6 percent of people 65 years and older, researchers have not focused much on the risks and benefits of therapies like catheter ablation in young patients.

Provided by American Heart Association

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